

(15) to receive a liquid supply, the other end (16) being sharpened for penetration of the subject's skin. A plurality of apertures (18) are provided, each being a cut extending across the external surface of the shaft side (11) at a sufficient depth to establish communication with the bore. The external aperture area is approximately three times greater than the internal aperture area, thereby ensuring that the liquid is delivered to a large surface area of tissue to improve absorption and eliminate fluctuations in delivery rate. The needle (10) can be mass-produced by aligning a batch of shafts alongside one another and running a grinder across the shafts' surfaces to create apertures (18) in the entire batch of needles simultaneously.- -

REMARKS

In response to the Notice to File Corrected Application Papers (a copy of which is enclosed as required), Applicants have filed this Preliminary Amendment to include an Abstract in the patent application that is compliant with 37 CFR §1.72(b). To that end, Applicants have amended the Specification to include an Abstract, on its own page, after page 19.

It should be noted that the Abstract was filed with the original application but was included on page 1. Also, to meet the 150 word requirement of 37 CFR §1.72(b), Applicants have amended the text of that original Abstract to comply with the word limit.

In view of the above, Applicants respectfully submit that the Specification is now compliant with 37 CFR §1.72(b).

Attached hereto is a marked-up version of the changes made to the Specification by the current preliminary amendment. The attached page is captioned **"Version with markings to show changes made."**

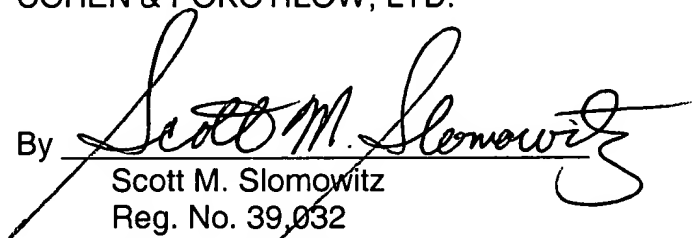
In view of the foregoing amendments and remarks, it is respectfully submitted that the Specification is now considered formal and may proceed to examination.

Respectfully submitted,

CAESAR, RIVISE, BERNSTEIN,
COHEN & POKOTILOW, LTD.

March 21, 2001

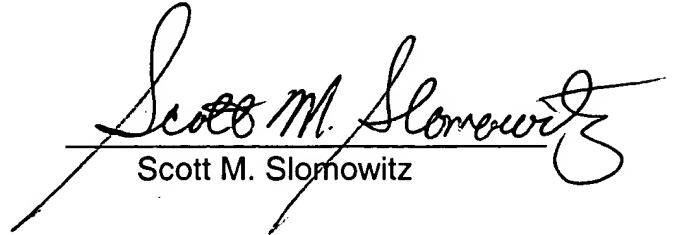
By



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CERTIFICATE OF MAILING

I hereby certify that the foregoing PRELIMINARYAMENDMENT and copy of Notice to File Corrected Application Papers *Filing Date Granted* re Application Serial No. 09/778,268 are being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on this 21st day of March, 2001.



Scott M. Slomowitz

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Version with Markings to Show Changes Made

IN THE SPECIFICATION:

After page 19, please insert the following:

- ABSTRACT

A needle (10) for delivering a liquid to a subject comprises a shaft (11) having an internal surface defining a longitudinally extending internal bore having an open end (15) to receive a liquid supply, the other end (16) being sharpened for penetration of the subject's skin. A plurality of apertures (18) are provided, each being a cut extending across the external surface of the shaft side (11) at a sufficient depth to establish communication with the bore. The external aperture area is approximately three times greater than the internal aperture area, thereby ensuring that the liquid is delivered to a large surface area of tissue to improve absorption and eliminate fluctuations in delivery rate. The needle (10) can be mass-produced by aligning a batch of shafts alongside one another and running a grinder across the shafts' surfaces to create apertures (18) in the entire batch of needles simultaneously.- -

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